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ABSTRACT

The fire prevention education bulletin helps schools continue their work to make the home, school, and community safe places in which to live and to help children and young people live in safe ways without developing undue fears. Briefly discussed are the goals of a fire prevention program, who should be concerned with fire prevention education, where the school's responsibility lies, and what approach should be used in the development of a school fire prevention program. Suggested learnings are given for the K-3 program in such areas as the home, school, neighborhood, and community and are integrated with the science and social studies curriculum. The suggested learnings for grades four through six center on fire prevention in our country and in selected regions of the world and are integrated with the science and social studies curriculum. Grades seven through twelve suggested learnings concentrate on various scientific concepts and are integrated with other specific curriculum areas. The document concludes with a discussion of fire drill guidelines for the school and home, a home fire drill inspection blank, and how to evaluate a fire prevention program. Appended to the document are information on various kinds of fire extinguishers and New York State's fire drill and fire prevention education laws. (Author/BP)

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FIRE PREVENTION EDUCATION

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

1974

NEW YORK STATE EDUCATION DEPARTMENT
Bureau of Elementary Curriculum Development
Bureau of Secondary Curriculum Development

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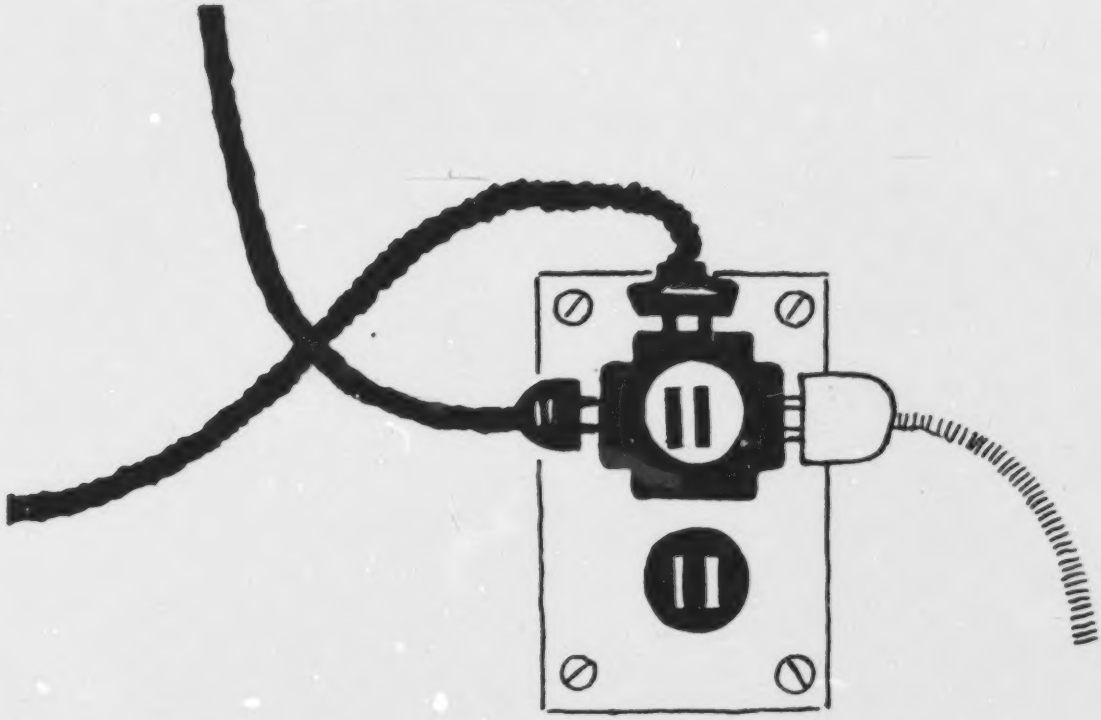

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FIRE PREVENTION
EDUCATION

Because

"The best time to fight fires is before they start . . ."

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FOREWORD

This bulletin is issued to serve a serious and practical purpose. The loss of life, personal injury, and property damage due to fire are phases of a social problem serious enough to demand the attention of all teachers. Moreover, it is now an established fact that fire prevention instruction helps to eliminate the waste of time, money, and personal injury caused by false fire alarms and is an effective means of reducing deaths, injuries, and property losses resulting from fires.

Fire prevention education is not something new to the schools of this State. The Education Law (see page 63) has required it since 1923 and the schools of the State have included it in their programs before such instruction became mandatory. Sometimes this instruction has been in the form of separate units of instruction on firesafety and sometimes it has been included in relationship to such other subjects as social studies, science, physical and health education, household and practical arts, and, perhaps more important, in relation to the daily and continuous practice of safe habits of behavior.

It is the purpose of this bulletin, therefore, to help the schools in the work they are already doing to make the home, school, and community safe places in which to live and to help children and young people live in safe ways without developing undue fears.

A great number of organizations and individuals were responsible for the development of the original "Fire Prevention Education" published in 1957. The list would be so long that it would be impractical to reproduce it here. Nonetheless the Department extends its thanks to all those who assisted the curriculum bureaus in its preparation and to Jeanne Ehmann of the Poestenkill Elementary School and William C. Claus, firesafety coordinator, Division of Educational Facilities Planning, who were responsible for preparing this 1974 revision.

GORDON E. VAN HOOFT, *Director*
Division of Curriculum Development

ROBERT H. JOHNSTONE, *Chief*
Bureau of Elementary
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What SHOULD BE ACCOMPLISHED?

KNOWLEDGE of what to do in an emergency caused by fire

SKILLS to aid in safeguarding the individual and others

ATTITUDES of genuine safety-consciousness regarding fire prevention

APPRECIATION for the benefits of controlled use of fire

AUTOMATIC RESPONSE to firesafety measures established by the child's group, the school, and the community

UNDERSTANDING of elements constituting a firesafe environment

APPLICATION of firesafety learnings to better the child's own environment

RESPONSIBILITY for the child's own safety and that of others from fire

COOPERATION by the individual and group in eliminating false fire alarms

SELF-CONTROL in fire emergencies, a valuable attribute of citizenship

All toward one goal:

FIRESAFETY and the PREVENTION of DESTRUCTIVE FIRES

1

Who SHOULD BE CONCERNED WITH FIRE PREVENTION EDUCATION?

PARENTS

BOARDS of education

PROFESSIONAL educators

NONINSTRUCTIONAL personnel within the school

PARENT-TEACHER associations

THE LOCAL community

FIRE chiefs

CITY and village officials

CIVIC and service organizations

LAY groups

COOPERATIVE nonprofit associations

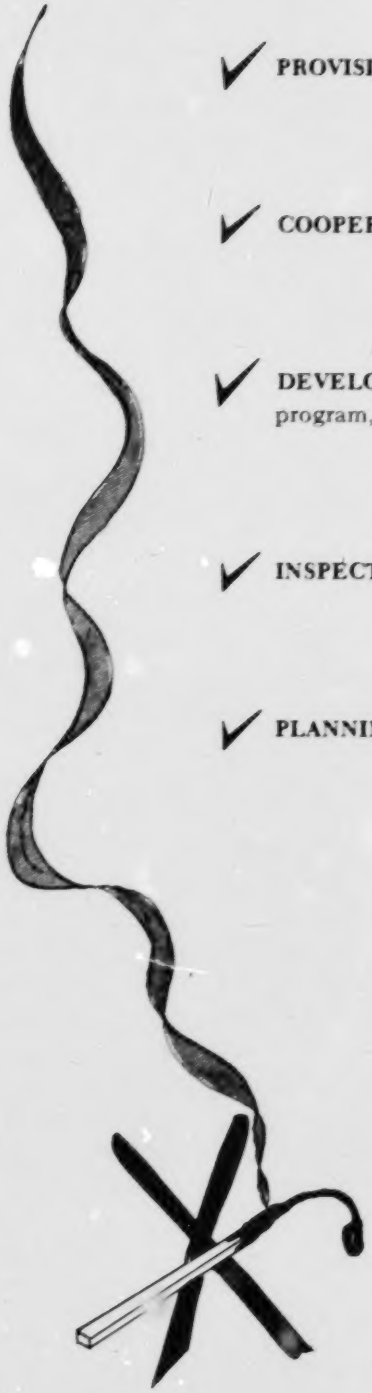
INSURANCE companies

Where IS THE SCHOOL'S RESPONSIBILITY?

1. **IN PROVIDING** schools safe from unnecessary fire hazards
2. **IN DEVELOPING** skill on the part of children in the safe handling of hazardous elements in the school environment
3. **IN BUILDING** a "safety consciousness" in the use of these elements
4. **IN INSTILLING** adequate knowledge to make practice intelligent in new situations dealing with fire prevention

Thus INSURING THE SAFETY OF THE CHILD

HOW DOES THE SCHOOL ACCOMPLISH ITS RESPONSIBILITY?



- ✔ **PROVISION** for a school environment safe from fire hazards
- ✔ **COOPERATION** with local agencies within the community
- ✔ **DEVELOPMENT** of adequate instruction in the fire prevention education program, integrating this instruction into the total curriculum
- ✔ **INSPECTION** and then correction of any deficiencies or fire hazards
- ✔ **PLANNING** which will provide firesafe future buildings, additions, or alterations

AN Approach TO FIRE PREVENTION EDUCATION

FIRE PREVENTION EDUCATION should continue to be included in the total pattern of experiences offered by the school as has been done in the past. This aspect of education is a continuous one, woven into the school and the community experiences of boys and girls.

THE CHOICE AND SEQUENCE OF TOPICS rests with the school itself. The following outline covers those suggested learnings that are contained in various subject matter areas of the total curriculum. They are highlighted here in order to emphasize the fire prevention education program.

THE NEEDS of individual children for firesafety instruction differ from community to community, as well as from child to child. Consequently, the suggestions given here will need adaptation by local schools.

THE POSITIVE APPROACH, or *what to do* rather than *what not to do*, is the most effective way to children's learnings. Nonetheless, in matters dealing with health and safety, what not to do cannot always be left entirely to chance.

THE GOALS of fire prevention education should be attained without arousing unnecessary fears. The approach to this entire program might well be to *secure firesafety through developing skill, knowledge, and respect for fire*.

THE CORRELATION OF THIS PROGRAM is recommended with other parts of the curriculum whenever the opportunity presents itself for natural integration. The suggested learnings found in these pages will serve as a guide to areas for emphasis.

SUGGESTED LEARNINGS FOR

THE CHILD in

KINDERGARTEN, GRADES ONE, TWO, and THREE

SUGGESTED LEARNINGS FOR

THE CHILD in

KINDERGARTEN, GRADES ONE, TWO, and THREE

IN THE SCHOOL:

a. Knows, follows, and responds to the signals and rules for a fire drill

1. The child has regular, supervised practice in regard to fire signals.
2. There is a definite sound connected with the fire drill alarm. It has a different sound from the air raid alarm.
3. Everyone has a definite role to play in a fire drill and should go where he is told when the alarm sounds.
4. Directions should be implicitly followed even though the reasons for such directions are not always clearly understood.

b. Follows the rules in case of fire

1. Rules set up for emergency drills are for the safety of boys and girls.
2. Automatic responses to rules for emergencies are necessary to insure the safety of all boys and girls.

c. Responds skillfully without unwarranted fear in times of emergency

1. A child can control his fears to a reasonable degree, without giving way to panic, when the correct procedures are known by everyone and followed with care.

d. Knows places used in an emergency and the need for keeping them clear

1. Boys and girls help in keeping the school in order.
2. Alternate exits must be used by children when regular exits are blocked.
3. It is everyone's responsibility to prevent fire hazards to the safety of all. Even a little child can help.

KINDERGARTEN, GRADES ONE, TWO, and THREE

IN THE SCHOOL AND HOME:

a. Knows that careful habits prevent fires

1. Careless use of matches is a principle source of destructive fires.
2. Matches should be kept in a safe place where younger children cannot reach them.
3. Older boys and girls or adults should take charge of matches.

b. Knows that a clean, orderly school or home is less apt to catch fire and helps to keep his orderly; that rubbish, especially oily rubbish, catches fire easily

1. Fires do not happen; they are caused.
2. Attics and cellars, if not kept clean and neat, provide conditions suitable for a fire.
3. Rags soaked in grease, oil, or paint should be disposed of or kept in metal containers.

c. Enjoys an orderly environment, makes plans for and is cooperative in keeping school and home in order

1. Places should be provided for storage of materials in the home and school.
2. Materials in home and school should be put away after use.
3. Desks in school should be kept in order, free from surplus paper.

KINDERGARTEN, GRADES ONE, TWO, and THREE

IN THE HOME AND NEIGHBORHOOD:

a. Knows the dangers connected with matches, an open fire, scalding liquids, or any hot materials

1. Burns can be serious. Any burn is painful.
2. In case of an accident, a child should immediately seek an adult for help.

b. Understands that matches, electrical outlets and cords, firecrackers, stoves, lanterns, or lighted candles may be sources of danger

1. Matches, especially wooden matches, should be kept in metal containers away from heat.
2. Lamps, candles, or open flames of any kind require very careful handling.
3. Candles in paper lanterns invite disaster.
4. Candles should be placed in substantial candlesticks, out of drafts and closets, and away from curtains.
5. Electrical equipment, cords, and outlets can cause electrical shock.

c. Keeps away from hot stoves, bonfires, and other open fires

1. Open fires and stoves can be dangerous.
2. Fires should be started only in a properly prepared place and completely extinguished before leaving.
3. Open fires should be carefully supervised by an experienced older person.
4. Permission of parents or other adults should be obtained before even the older children start any fire.
5. In many communities, a special permit must be obtained from the fire chief before a fire can be started.

KINDERGARTEN, GRADES ONE, TWO, and THREE

IN THE HOME AND NEIGHBORHOOD:

d. Keeps away from containers of hot liquids and willingly refrains from handling anything that can burn or scald him or cause a fire

e. Knows the importance of obtaining the help of an older person and calls one at once in case of fire

1. There are fire alarm boxes in the school and neighborhood. Children should be familiar with how they are operated.
2. An adult can be summoned personally or the telephone can be used to summon help.

f. Knows what to do in case of his or another person's clothing catches fire and practices correct procedure in dramatic play

1. People should never run if their clothing catches fire. Instead, they should smother the flame with a blanket or coat. If such action is not possible, the person should lie down on the ground and smother flames by rolling over and over.
2. If someone is burned, even slightly, he should receive medical attention at once.

g. Realizes the importance of keeping levelheaded, dependable, and reasonably unafraid in a fire emergency

1. When the firebell or siren sounds or when it is realized the building is on fire, everyone should keep calm and act quickly.
2. If in school, everyone should proceed according to fire drill instructions.
3. Individuals should avoid screaming or crowding and should walk to the nearest exit.
4. Everyone should try to use the fire escapes or wait near a window for the firemen if regular exits are not available.
5. One should jump from an upper story window only as a last resort.

KINDERGARTEN, GRADES ONE, TWO, and THREE

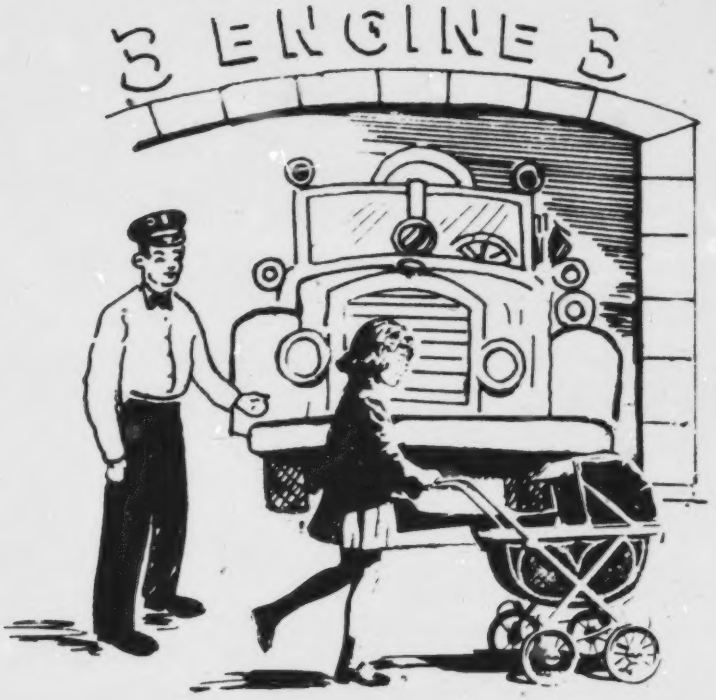
IN THE HOME AND NEIGHBORHOOD:

h. Appreciates and understands the beneficial uses of fire and electricity when properly used

1. Heating equipment varies in different homes and buildings.
2. Methods of cooking and preparing foods are based upon the use of fire or heat. There are various methods of cooking.
3. Many gas, oil, or electrical appliances are used to make our homes and community buildings more comfortable.

i. Understands the functions and benefits of the local fire department

1. Turning in a fire alarm summons the local fire department.
2. The local fire department is a friendly and interesting place to visit.



KINDERGARTEN, GRADES ONE, TWO, and THREE

IN THE COMMUNITY:

a. Is alert to the fire hazards in his everyday living and is cooperative in observing fire-prevention measures

1. **Some fires start themselves in a process known as spontaneous ignition.**
   (a) Old newspapers often ignite spontaneously when stored in damp places.
   (b) Hay, grain, and dairy feed can ignite spontaneously if stored while damp or in damp, poorly ventilated sheds or barns.

2. **Lamps, candles, or open flames of any kind require very careful handling.**
   (a) Only electric lights or flashlights should be used in confined places such as closets.
   (b) Only lamps of substantial, safe, and approved design should be used in summer cottages.
   (c) Lamps and lanterns should be filled only when unlighted and out-of-doors.

3. **Some sources of fire may be home chimneys (burning soot or burning trash), industrial plants, sparks or overheated wires in electrical circuits, or open fireplaces.**

(a) Some aspects of our recreational program promote fire hazards if care is not exercised.

(1) Signs "No Fires" and "Cover All Fires" should be observed and obeyed.

(b) Campfires should be built only where permitted and used with care.

b. Knows the commonly used materials which are flammable; understands the danger of using kerosene or "cleaners," such as gasoline, to start a fire

1. Certain flammable liquids such as ether, gasoline, and benzine are particularly dangerous because they vaporize readily and have relatively low ignition points.

   (a) They should be stored in marked, tightly closed metal containers, away from heat, and only in small amounts.

2. Kerosene or other flammable liquids should not be used to start or revive a fire.

3. Materials offered commercially for starting fires should be used according to the directions.

4. Only nonflammable liquids should be used for cleaning clothes. Use these in a well-ventilated place because of danger of fire and of inhaling noxious gases.

c. Knows how to give a fire alarm by telephone or at the alarm box. Asks an adult to give an alarm in case of fire or gives it himself if an adult is not available

1. When telephoning, always say, "I want to report a fire at ....." and then give the street address.

2. The location of the nearest fire alarm should be known.

3. Fire alarm boxes are easy to use but are for emergencies only.

4. An adult should be summoned personally or by telephone in a fire emergency.

5. On a party line, the telephone should be released immediately when requested by a person desiring to report a fire. If a neighbor refuses the line (thinking the person is joking), ask him to call the fire department for you.

d. Knows he should wait at the fire alarm box for firemen to come to the scene in order to tell them the exact location of a fire if he gives the alarm

1. After sending an alarm, the person should wait for the fire apparatus and direct it to the fire.

e. Is reasonably calm and levelheaded in a fire emergency

1. Fear is generally based upon the unknown. If children know what to do in an emergency, the major basis of fear should have been removed.

f. Has an appreciation for the part firemen play in serving the community (Has visited the nearest fire department or has talked with a local fireman who has visited his school.)

1. Community agencies are organized to protect and conserve life and property.
2. The organization and duties of the local fire department are important to all citizens of the community.

g. Understands his responsibility toward the fire protection services provided by the community

1. Everyone should support and cooperate with his local fire protection services.

h. Has a strong appreciation of the role fire protection has played in the history of the community

1. The third-grade child has discovered how his community fought fires in the days of the early settlers.

i. Understands the scope of his responsibility in promoting firesafety

1. All should be on guard against incendiary fires and cooperate in their curtailment.

j. Understands the danger of false alarms

1. A good citizen realizes the serious implications of turning in a false fire alarm and refrains from doing so.
   (a) The apparatus may be needed elsewhere.
   (b) People may be injured needlessly.
   (c) Answering false alarms wastes public money.
   (d) The law should be respected since there are valid reasons for making such laws.

k. Helps reduce the incidence of false alarms

1. Cooperation in reducing false alarms should be undertaken by all children wherever false alarms are a problem.
2. Groups engaged in mischievous turning in of fire alarms should be discouraged or reported to authorities, the principal, or the police.

l. Knows the danger of objects being struck by lightning, how to avoid this danger, and is unafraid during an electrical storm

1. At the approach of an electrical storm, one should seek shelter in a building or lie down on the ground away from trees and fences.
2. Kites with metal ribs or wires or tinsel twine for the tail are dangerous. Flying of kites at the approach of a storm is also dangerous.

Opportunities for Correlation With Other Areas of the Curriculum

WITH SOCIAL STUDIES:

IN THE SCHOOL:

a. **Why the school fire alarm is important**

1. The school fire alarm has a definite sound of its own.
2. Fire drills are set up to evacuate the school in an orderly and rapid manner.

IN THE HOME:

a. **How fire cooks our food**

b. **How fire keeps us warm**

c. **How we can keep from being burned**

1. Stoves, heaters, electric cords, and candles have a purpose but can be enemies if we are not cautious.
2. Fire, bonfires, or matches should be treated with care.
3. Electric cords and appliances can be a friend, but if mishandled, a foe.

d. **How fire can harm us at home**

e. **How we can help our family have a firesafe home**

1. Rubbish and trash in cellars, closets, attics, and other danger areas should be eliminated.
2. Oil or greasy rags should be discarded or kept in a tight metal container.
3. Clothes and papers should be kept away from stoves, stovepipes, radiators, fireplaces, and other dangerous areas.

KINDERGARTEN, GRADES ONE, TWO, and THREE

IN THE HOME AND NEIGHBORHOOD:

a. Why we keep away from outdoor fires

b. What we do in case of fire

c. What we do in case our clothing catches fire

d. What role the fireman plays in keeping our neighborhood safe

KINDERGARTEN, GRADES ONE, TWO, and THREE

IN THE COMMUNITY:

a. How communities provide for safe living today

1. The industries in our community use fire.
   (a) Manufacturing
   (b) Transportation
   (c) Communication
2. The people of our community work together to prevent destructive fires.
   (a) The responsibility of the home
   (b) Community agencies
   (c) Fire department
   (d) Fire patrol
   (e) Forest rangers

b. How communities in early days were made safe

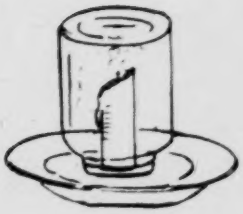
1. The use of fire in early days and how its use has improved
2. The dangers of fire in early days compared to contemporary times
3. The history of the local fire department

c. How the control of fire is necessary for conservation of natural resources

d. How fire has played an integral part in the lives of people in communities throughout the world

KINDERGARTEN, GRADES ONE, TWO, and THREE

WITH SCIENCE:



a. How air helps fire burn

b. How water puts out fires

c. How electricity must be handled according to certain simple rules

d. How we use electrical appliances properly

Pertinent Activities

a. To know about the school fire alarm

Tour the building to see where alarm boxes and bells are located. Visit the principal's office to see how the bells are rung, listening to the sound of the fire alarm and comparing it to the sound of the air raid alarm, if this is possible. Discover where the children should go in the event the fire alarm rings.

b. To enjoy an orderly environment, plan for it, and cooperate in the school

Teachers, with the help of the children, plan how the storage units can best be utilized. Make clearing of aisles, orderly desks, and general condition of the room a cooperative venture, planned and managed by the boys and girls.

c. To understand the benefits of fire when properly used

Consider the children's homes, discussing the different kinds of stoves they have to cook their food. An exhibit of pictures from magazines could be arranged with the different stoves represented.

d. To understand air is necessary for fire to burn

Use two candles of the same size and two jars of the same height but with as much difference in their diameters as possible. Secure both candles to a smooth surface and light them. At exactly the same time, place one jar over each candle and watch what happens. Which went out first? Why?

e. To be alert to the fire hazards in his everyday living

Studies of the causes of destructive fires reported in the community might be undertaken. Committee reports on aspects of these fires could be given to the class as a whole.

f. To know how to give a fire alarm by telephone

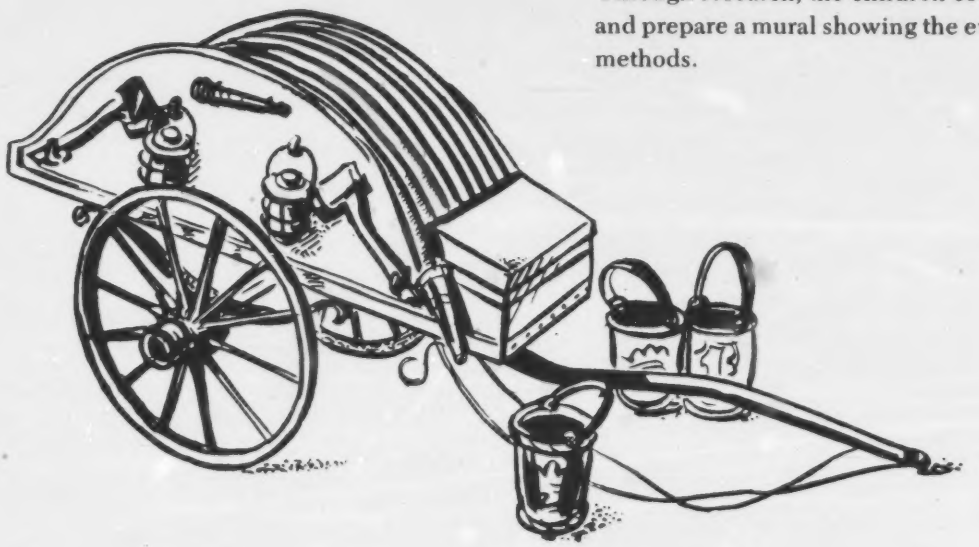
Role playing with telephones installed within the classroom should be of value. The opportunity to stress the need for relinquishing a party line in an emergency can be shown at this point.

g. To have an appreciation for the part firemen play in serving the community

Fire Prevention Week might afford an opportunity to visit the fire department, arranging in advance for a demonstration of firefighting equipment. Invite firemen to come to the class to discuss their duties and responsibilities to the community. Teacher-pupil planning would be valuable prior to both activities so that definite points could be considered.

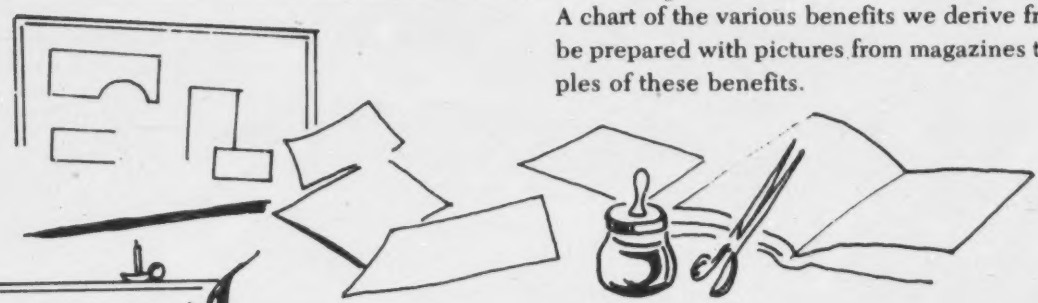
h. To have an appreciation of fire protection in history

Through research, the children could gather information and prepare a mural showing the evolution of firefighting methods.

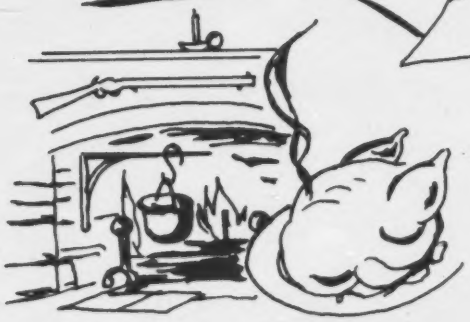


KINDERGARTEN, GRADES ONE, TWO, and THREE

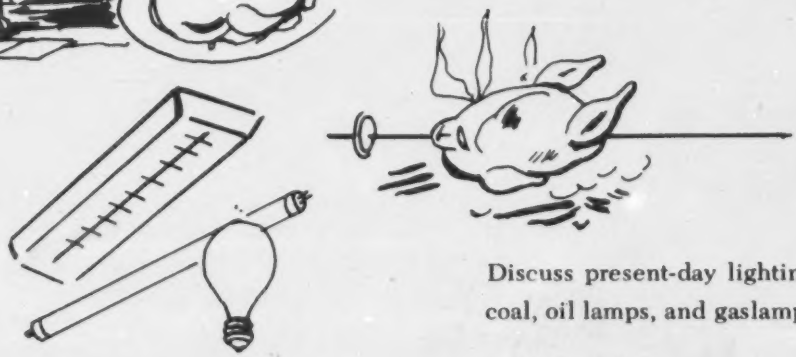
i. To appreciate and understand the beneficial uses of fire



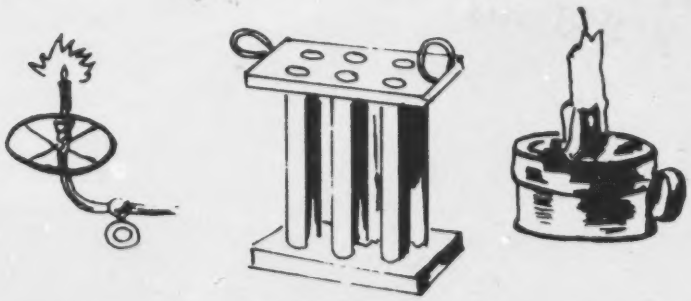
A chart of the various benefits we derive from fire could be prepared with pictures from magazines to show examples of these benefits.



Perhaps the homemaking teacher from the high school could have her students come to the classroom to tell what role fire plays in making housekeeping a more comfortable undertaking.



Discuss present-day lighting in comparison to candles, coal, oil lamps, and gaslamps.



Since fire prevention education permeates the entire curriculum of the elementary school, publications of the New York State Education Department listed on page 34 suggest many other applicable activities.

SUGGESTED LEARNINGS FOR

THE CHILD in

GRADES FOUR, FIVE, and SIX

GRADES FOUR, FIVE, and SIX

IN OUR COUNTRY AND IN SELECTED REGIONS OF THE WORLD:

a. Knows advantages of electricity and the dangers from carelessness in its use

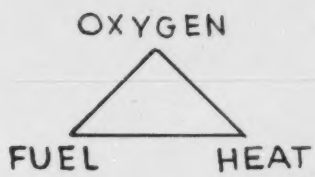
1. In an electrical age, it is necessary for people to use electrical appliances wisely.
   (a) Electrical installations should be done by experienced electricians.
   (b) Periodic inspections should be made of wiring systems.
   (c) Electric appliances, such as irons and toasters, should be disconnected when not in use.
   (d) Electric cords should not be placed under rugs or where insulation may be worn or the wire broken.
   (e) Electric cords should be kept off radiators and steampipes.
   (f) Worn cords should be replaced.
   (g) Fuses provide fire protection. Before changing a fuse, the main switch should be pulled.
   (h) Fuses of the proper size for the circuit involved should be used.

b. Knows the danger of touching a live electric wire or of handling electrical equipment with wet hands

1. There is a danger when radio, electric fans, or other electrical items are placed in the bathroom where they might fall into the water or where wet hands might come in contact with them since — through accidental grounding combined with the wet hands — a serious electric shock, or death, could result.

c. Is familiar with incidence of fires and their causes, as well as danger and expense involved in false fire alarms

1. Cigarettes, pipe embers, and careless use of matches are some of the chief causes of all fires in the United States.
2. Chemical reactions occur whenever there is fire.
3. Chemical changes may occur at low, moderate, high, or very high rates. For example: wood rots slowly but burns at moderate speeds. Nitrocellulose burns rapidly. Many dusts in suspension burn with explosive speed.



4. Fire is the rapid combination of a combustible substance with oxygen.

5. Three conditions are necessary for fire. When all three of these factors are present, there must be fire. If one or more is lacking, there cannot possibly be fire.
   (a) Fuel or combustible material must be present.
   (b) There must be sufficient oxygen to support combustion.
   (c) The substance must be heated to a temperature sufficient to cause vaporization in most cases before ignition can occur.

6. Heat necessary to start a fire may result from friction, slow or rapid oxidation, sunrays, electricity, and lightning.

7. Some substances have low ignition temperatures; other substances have high ignition temperatures.

8. As stated above, oxygen is necessary for combustion. The amount of oxygen must be regulated in fires in stoves, furnaces, fireplaces, gas burners, oil burners, and other fuel-burning devices.

9. Old newspapers, when stored in damp places, may start a fire.

10. The seriousness of sending in false alarms must be understood by all.
    (a) Departments and equipment answering false alarms may be delayed in attacking actual fires.
    (b) Answering each alarm represents a considerable expense.

d. Knows the proper way to use matches, bonfires, and campfires

1. Matches, especially wooden matches, should be used properly and struck or lighted away from the body.

2. Matches should be completely extinguished before being thrown away. If used out-of-doors, they should be broken into two parts after they are extinguished.

GRADES FOUR, FIVE, and SIX

e. Recognizes social significance of fire safety

1. The preventive measures taken by an individual are for the benefit of the entire community.

2. The demands of society are best served by prevention of destructive fires.

f. Recognizes the interdependence of individuals and groups in fire prevention

1. There are two aspects of fire insurance:
   (a) Insurance may provide the money to replace a loss from fire.
   (b) It cannot bring back what has burned nor undo the death and suffering caused by fire.

2. Agencies promoting fire prevention in the interest of cutting fire losses provide much information and material on fire prevention. Some also provide inspection services which approve materials and devices manufactured according to their specifications.

3. Community agencies are organized to protect and conserve life and property.
   (a) The role of the firewarden, rangers, fireboats, and fire patrols are important in this respect.

g. Realizes that a safe community makes possible more and more interesting work and play

1. In decorating for parties and other celebrations in the school and home, attention should be given to careful use of fireproof materials.
   (a) Flame-resistant crepe paper may be purchased.

(b) Paper decorations should not be of the connecting or streamer type which might allow fires to run from one part of a room to another.

(c) Safeguards also should be taken in the matter of theatrical scenery and costumes.

2. Boats of all kinds provide special fire problems.

(a) Those handling boats should be acquainted with the fire hazards present in the particular type of boat.

(b) Sufficient fire extinguishers of the proper type should be available.

h. Knows precautions, insofar as fire is concerned, that should be taken during and following an atomic attack

1. When confronted by a fire emergency, three conditions are essential to the fire: combustible material, oxygen, kindling or ignition temperatures. Elimination of one or more of these conditions will put out the fire.

(a) If combustible material can be removed, fire will burn itself out.

(b) Fires can sometimes be smothered by removal of oxygen supply, covering with dirt or sand, covering with blanket or rug, or sweeping with a broom as in a grass fire.

2. Water puts out fires by reducing temperature below ignition point and by smothering, in some cases.

(a) Fire may be kept from spreading by drenching surroundings, by pouring water on walls and roofs of nearby buildings.

(b) If water is used on a small flame, a little at a time should be added rather than all at once.

(c) It is the burning substance, the base of the flame, that must be attacked, rather than the flame itself.

(d) Special fog nozzles diffuse the water into minute droplets greatly increasing the effectiveness of the water in putting out the fire.

3. There are times when water must not be used, except as "fog."

(a) On oil or gasoline fires, as the burning oil floats on water and spreads to a larger area.

(b) On fires in electrical circuits, as water conducts electricity and may cause further short-circuiting and fires.

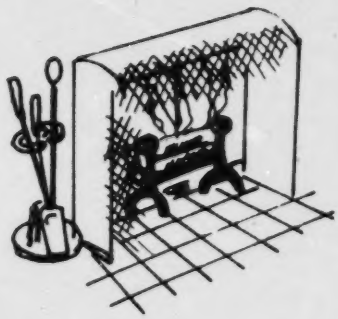
i. Knows how to care for individuals in the case of fire, air raid, or other emergency

1. Pupils and teachers should know the principles of first aid for burns.

(a) For first degree burns, follow recommendations of the school physician.

(b) For second and third degree burns, call a doctor at once. Do not remove clothing except under medical supervision; cotton or other material which will stick to a burn should never be placed on it. Begin first aid by resuscitation when necessary.

j. Understands benefits of fire used properly and the dangers resulting from its misuse



1. Fire is extremely useful in the heating of homes and other buildings.

(a) All heating equipment should be used carefully and intelligently.

(b) Fireplace openings should be completely enclosed by fire screens.

(c) Clothing and flammable articles such as toys and combs should be kept a safe distance from fire.

(d) Dangers of extinguishing fires by reducing the oxygen supply when using gas and oil heaters, particularly in small closed rooms, should be recognized. Gas flames may be extinguished and escaping gas may cause asphyxiation.

(e) Furnaces should not be overheated, nor under any condition should stove or stovepipes be allowed to become red hot.

(f) Furnace drafts and dampers should be used properly.

(g) Stovepipes should not come into contact with woodwork.

(h) Furnace pipes passing through wood partitions and walls should be provided with ventilated sleeves (thimbles). Those near floors or joists should be covered with asbestos wrappers.

(i) Stoves, flues, and chimneys should be kept free from soot.

(j) Chimneys and flues should be examined regularly by responsible adults to find defects.

(k) Furnace ashes should always be placed in metal containers.

(l) Only approved electric radiant heaters should be used and then with great care; flammable materials should be kept away from them; and they should not be touched by people with wet hands or bodies since accidental grounding could result in an electric shock.

2. Fire is useful in preparing our foods.

(a) Gas ovens should be lighted properly.

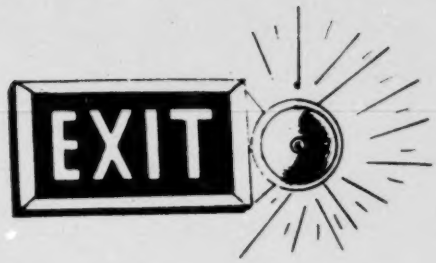
(b) Wood should not be dried in ovens nor clothing hung too near stoves or furnaces.

K. Accepts his role as a member of his community and country in preventing fires

1. After guarding against fire, still be prepared for fire.

(a) When entering a building, observe the nearest exit and an alternate.

(b) Obstructed or locked exits should be reported.



(c) The meanings of the red light and the exit sign should be known.

(d) The location of fire alarm boxes and how they work should be known by all.

(e) Persons should be able to report an alarm by telephone.

2. Buildings should be as fireproof as possible.

(a) Local and State building codes should be followed.

(b) Protection is gained through the use of fire resistive and fireproof materials.

3. All should be on guard against incendiary fires.

(a) Fires are sometimes set by arsonists for thrills or in the hope of collecting insurance.

4. A large proportion of our annual fire loss occurs on farms.

(a) Improper storing of hay, grain, and fodder may cause spontaneous ignition.

(b) Smoking, lanterns, and faulty wiring in barns are important causes of fire.

(c) Farm buildings improperly equipped against lightning are invitations to disaster.

(d) Vegetation should be cut periodically around all buildings, occupied or otherwise.

GRADES FOUR, FIVE, and SIX

Opportunities for Correlation With Other Areas of the Curriculum

WITH SOCIAL STUDIES IN OUR COUNTRY AND THE WORLD:

a. How the use of fire parallels the industrial and cultural development of a region

b. How men of a region developed techniques of controlling fire for their protection

c. How in the industrial East of the United States, which includes New York State, special provisions are made to control fires

d. Why in some regions the chief danger of fire comes from forest fires; in other regions, the most serious fires are industrial fires

e. How firewardens and forest rangers watch day and night for fires

f. How volunteer organizations help in many communities and will go into other communities of a region when necessary

g. How Boy and Girl Scout groups and 4-H clubs give practice in fire prevention

GRADES FOUR, FIVE, and SIX

WITH SCIENCE:

a. How we get heat and light in different ways

b. How heat travels from one thing to another

c. How heat and sources of heat must be handled in certain ways to avoid their becoming enemies rather than helpers

d. How electricity is a safe, convenient, and clean source of heat, light, and power provided we follow a few simple rules

e. Why burning is a chemical change

f. What conditions are necessary for burning and how we can control these

WITH HEALTH:

a. Which volatile liquids emit explosive vapors

b. That flammable clothing is dangerous to wear

c. That the inhalation of smoke and other byproducts of combustion can be fatal

d. How to observe firesafety when camping

Pertinent Activities

a. To know the advantages of electricity and dangers of carelessness with it

1. Using small porcelain sockets or a pigtail socket from a Christmas tree lighting outfit, connect the terminals by bare copper wires about 10 inches long to the terminals of a dry cell. The lamp in the socket should light.

   Now touch the wires together about 2 or 3 inches from the dry cell for a second or two to show a broken circuit. Does the light go out? Does the wire become hot?

   Repeat the operation using covered copper wires instead of bare wires. Does the covering on the wire conduct electricity? Why do electric wires need to be insulated?

b. To become familiar with incidence of fires and their causes

1. Discuss the causes of the greatest number of fires. Then consider the causes of the greatest fire loss. Investigate whether there are any fires beyond the control of man. What can be done about lightning as a cause of fire?

c. To know how adults build, care for, and put out a campfire

1. After investigation on the part of boys and girls, show them the proper way to build and care for a campfire, including the proper way to extinguish it.

d. To know the proper way adults use matches

1. Demonstrate the correct practices in carrying, lighting, and throwing matches away.

2. Using a wooden match, demonstrate how to strike it against something rough; then try rubbing a match against something smooth. Point up the safety features of a common household type match.

e. To recognize social significance of firesafety

1. Investigate the possibility of a junior fire marshal's club or a junior fire prevention league to help with home fire drills and home firesafety as well as that at school.
2. Prepare a mural or chart to show the development of lighting in connection with our history with emphasis on how much safer lighting has become.

NEW YORK STATE EDUCATION DEPARTMENT PUBLICATIONS

(Applicable to Fire Prevention Education)

In the following publications, more detailed treatment of learnings pertinent to fire prevention education will be found.

Health, Grades K-3. Strand V. Education for Survival: Safety Education. Bureau of Elementary Curriculum Development. 1969.

Health, Grades 4-6. Strand V. Education for Survival: First Aid and Survival Education. Bureau of Elementary Curriculum Development. 1969.

Health, Grades 4-6. Strand V. Education for Survival: Safety Education. Bureau of Elementary Curriculum Development. 1969.

Multimedia Materials for the K-3 Social Studies Program. Bureau of Elementary Curriculum Development. 1966.

Respect for Rules and Law. Bureau of Elementary Curriculum Development. 1969.

Science for Children K-3. Bureau of Elementary Curriculum Development. 1965.

Science for Children 4-6. Bureau of Elementary Curriculum Development. 1965.

Selected References for Teaching Conservation. The State Education Curriculum Development Center. 1968.

Social Studies K-3. Bureau of Elementary Curriculum Development. 1969.

Social Studies. Bibliography, Grade 5. Bureau of Elementary Curriculum Development. 1966.

SUGGESTED LEARNINGS FOR

THE PUPIL in

GRADES SEVEN, EIGHT, and NINE

Although the understandings or learnings which follow are listed in various secondary school syllabuses and handbooks, they are compiled here in order to highlight those most directly pertaining to the fire prevention education program. A list of these various publications will be found on page 44. The samples given here are taken from the science program of these grades.

35

GRADES SEVEN, EIGHT, and NINE

a. Knows conditions necessary for ignition

1. A fire will not continue to burn in a closed space.
2. Solid and liquid fuels are frequently changed into gaseous form before ignition occurs.
3. The amount of heat required to raise a combustible substance to its ignition point depends upon the nature of the substance, the amount of water present, and other factors.
4. Ignition occurs more readily when some combustible substances are in a finely divided state.
5. Fires may often be started by means of friction.

b. Understands how oxygen behaves

1. The substance in the air that supports ignition is called oxygen.
2. Heat produced by slow oxidation can ignite some substances.

c. Understands the changes that take place when substances burn

1. All liquid and solid fuels change to a vapor before burning.

d. Knows how fires are extinguished

1. Fires may be extinguished by reducing the temperature or by removing the fuel or the oxygen.

e. Knows how the dangers of fire may be avoided

1. Dried evergreens should be discarded from the home.
2. Wet substances do not ignite until the water is boiled away.
3. A lighted cigarette is hot enough to start a fire.
4. The cover of a book of matches should be closed before striking in order to avoid setting fire to all the matches.
5. Overheated wires result from overloaded circuits and may cause a fire.

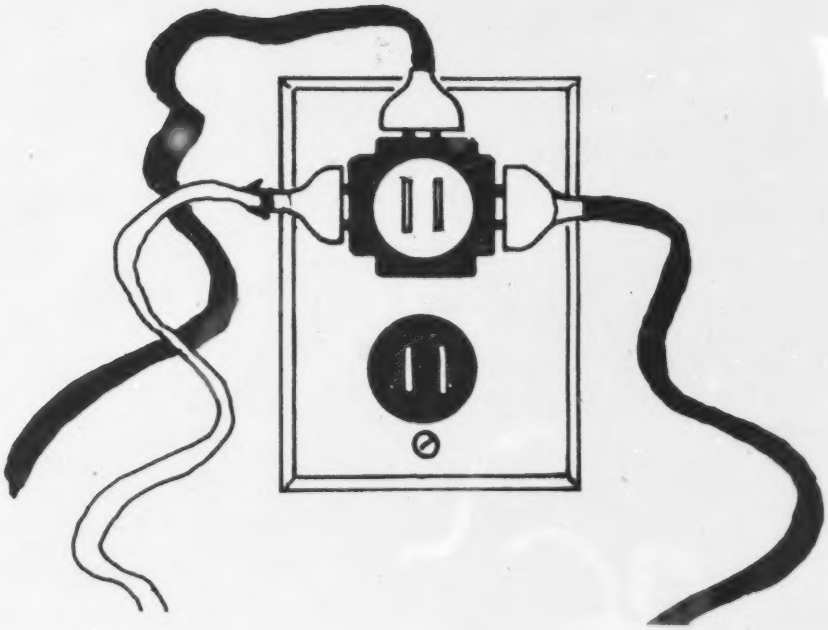
GRADES SEVEN, EIGHT, and NINE

f. Knows how to produce safely some typical chemical changes

1. Accidents in the laboratory can be prevented by employing proper procedures and developing safe habits.
2. Many chemical changes are produced by heat or electrical energy.

g. Knows how to use electricity safely

1. House current, if carelessly handled, can be very dangerous and even fatal.
2. Fuses and circuit breakers are safety devices that break an electric circuit when the circuit is overloaded.
3. A short circuit can be dangerous.
4. Using badly worn cords, placing lamp cords under rugs, and the like are unsafe practices in the use of electricity.
5. Overheated wires result from overloaded circuits and may cause a fire.



NOTE: Pertinent activities for the above learnings can be found in the science handbooks indicated with an asterisk on page 44.

GRADES SEVEN, EIGHT, and NINE

Opportunities for Correlation With Other Areas of the Curriculum

WITH HEALTH:

a. Knows that burns are injuries to tissue and are caused by

1. High temperatures
2. Electricity
3. Radioactive substances
4. Chemicals

b. Knows that burns are tissue lesions classified according to the severity as

1. First degree — redness
2. Second degree — blisters
3. Third degree — charring

c. Knows how to treat thermal burns

1. Cover the burn with a dry, sterile compress
2. Treat for shock

d. Knows how to treat chemical burns

1. Wash away the chemical
2. Neutralize the chemical

e. Knows that fires are one of the two major causes of injuries in the home

GRADES SEVEN, EIGHT, and NINE

WITH SOCIAL STUDIES:

Our Community and State:

a. How fire prevention and protection pertain to the school

b. How fire prevention and protection pertain to the local community

c. How fire prevention conservation applies to natural resources

d. How fires affect the economy of the community and the State

e. How fire prevention is a part of civil defense

f. What State laws apply to fire

United States:

a. How fire prevention and protection differed in various periods in our history

b. How fire prevention and protection are responsibilities of governmental agencies

c. How changes in our country have created fire dangers

d. Fire prevention as a part of civil defense

The Economic World:

a. Fire prevention and social welfare (slum clearance, housing regulations, zoning, etc.)

b. Growth and development of fire protection agencies, general and local

c. The role of the fire insurance company in modern society

d. Opportunities for careers in fire prevention work

SUGGESTED LEARNINGS FOR

THE PUPIL in

GRADES TEN, ELEVEN, and TWELVE

Although the understandings or learnings which follow are listed in various secondary school syllabuses and handbooks, they are compiled here in order to highlight those most directly pertaining to the fire prevention education program. A list of these various publications will be found on page 44.

GRADES TEN, ELEVEN, and TWELVE

a. Health Education and General Science:

1. Fire prevention in the home
2. Responsibility of different family members in preventing destructive fires
   (a) Protection of young children
3. Periodic inspection and removal of fire hazards in the home
4. Dangers of misuse of fire
5. Firefighting equipment for the home and automobile
6. Responsibility in emergencies
7. First aid
   (a) Treatment and causes of burns and scalding
      (1) Differentiate between various degrees of burns. The seriousness of the burn is related to its extent on the body.
   (b) Care for electric shock and for asphyxiation
      (1) Symptoms of fainting, gas poisoning, and electric shock
   (c) Recommended procedures for moving injured people
8. Responsibilities in emergencies such as atomic bomb attack

b. Biology:

1. Forest fire prevention and protection
2. Conservation of natural resources
3. Fires caused by lightning

GRADES TEN, ELEVEN, and TWELVE

c. Physics:

1. Prevention of electrical fires with particular reference to proper installation and upkeep of electrical wiring and apparatus
2. Friction as related to fire prevention

d. Chemistry:

1. Danger of use of flammable liquids
2. Safety precautions applicable to the laboratory
3. Flameproofing and fireproofing
4. Chemical fire extinguishers

e. Homemaking:

1. Safe and efficient use of household equipment and supplies
2. Fire prevention in the home

f. Industrial and Vocational Education:

1. Safe practice in the use of torches and various heating devices
2. Fire prevention and fire extinguishing in the shop

NEW YORK STATE EDUCATION DEPARTMENT PUBLICATIONS
(Applicable to Fire Prevention Education)

In the following publications, more detailed treatment of learnings listed in the preceeding pages will be found:

HEALTH

Strand V. Education for Survival. First Aid and Survival Education for Grades 7, 8, and 9. Bureau of Secondary Curriculum Development. 1970.

Strand V. Education for Survival. First Aid and Survival Education for Grades 10, 11, and 12. Bureau of Secondary Curriculum Development. 1970.

Strand V. Education for Survival. Safety Education for Grades 7, 8, and 9. Bureau of Secondary Curriculum Development. 1970.

SCIENCE

*Science 7-8-9. Bureau of Secondary Curriculum Development. 1971 (includes "Index to Activities" to be found in general science handbooks)

*General Science Handbook, Part I. Bureau of Secondary Curriculum Development. 1969.

*General Science Handbook, Part II. Bureau of Secondary Curriculum Development. 1969.

*General Science Handbook, Part III. Bureau of Secondary Curriculum Development. 1969.

*Chemistry Handbook. Bureau of Secondary Curriculum Development. 1962.

*Core Electricity — Electronics. Bureau of Secondary Curriculum Development. 1972.

*Electricity Project Ideas for Industrial Arts. Bureau of Industrial Arts Education. 1965.

*Industrial Arts. Bureau of Secondary Curriculum Development. 1967.

*Physics Handbook. Bureau of Secondary Curriculum Development. 1970.

SOCIAL STUDIES

Social Studies. Grade 7: Our Cultural Heritage. Grade 8: United States History. Bureau of Secondary Curriculum Development. 1972.

Teaching Economics. Bureau of Secondary Curriculum Development. 1966.

Teaching the Age of the City: The Gilded Age and After (1865-1914). Bureau of Secondary Curriculum Development. 1972.

OTHER ASPECTS of Fire Prevention Education

FIRE PREVENTION EDUCATION is everybody's job. The following are aspects of the program which should be carried out in every school:

1. **Fulfillment** of all legal requirements, such as fire drills, compliance with laws pertaining to instruction, and the necessary "School Fire Inspection Report"

2. **Planning** for all possible emergencies

   (a) Developing rules and regulations governing the use of the school building

   (b) Inaugurating adequate fire prevention measures

   (c) Providing an on-going, proper instructional and public relations program relative to firesafety

3. **Development** of optimum conditions for the prevention of fires

   (a) Periodic inspection by experts of the boilers, fire extinguishers, electrical and mechanical equipment, and the physical plant for possible fire hazards

   (b) Providing for the proper storage and disposal of trash, rubbish, oil rags, cleaning, and other materials which could cause spontaneous ignition

   (c) Providing the necessary devices and materials to insure a firesafe building

PLANNING FOR NEW CONSTRUCTION OR ALTERATIONS should include the following aspects of fire prevention education:

1. **Incorporating** firesafety standards into any building or remodeling program

2. **Providing** maximum fireproof construction, automatic sprinklers, alarms, fire extinguishers, adequate exits, safe heating systems, fireproof furnace rooms and floors, correct wiring and insulation of all electrical systems

3. **Locating** the school plant in a nonhazardous environment when new schools are being considered

***Includes pertinent activities.**

FIRE DRILL

IN THE SCHOOL

47

THE FIRE DRILL in the school

1 must be held 12 times during the school year, eight drills between September first and December first. If the building has fire escapes, four drills must include the use of these fire escapes.

2 should provide a maximum of experiences in meeting an emergency situation. In too many cases, teachers are notified in advance of the drill, eliminating needed experiences for both teachers and children.

3 should be a surprise. After the first two drills of the year or as soon as all personnel and children are aware of the emergency procedures to be followed, fire drills should be called without warning.

4 might even be a surprise to the principal. It might be advisable for the head custodian to be given authority to call a drill occasionally — so that the principal may have practice in meeting an emergency situation.

5 should be an educative process, planned to meet all possible emergencies. Fighting of the fire should be considered only after everything is done that will insure the safety of all persons.

6 should insure that pupils and teachers leave the building in an orderly and quiet manner. While speed is important, it is secondary to orderliness and quiet.

7 should train pupils to leave the building with or without teachers. Alternate exits should be used in the event the customary exits might be obstructed by smoke or flame.

8 should provide for the evacuation of all noninstructional personnel in the building also.

9 should provide for two grades, located near each other, to be routed with two teachers, one at the head of the line and the second at the end of the line, closing doors and checking rooms.

10 should provide for the evacuation of handicapped students who might have difficulty leaving the building with the class or a group of students.

11 should afford an opportunity for a rollcall upon completion of the evacuation. A report of this should be made to the person in charge of the building.

12 should have a plan for the use of one or more facilities, as near the school as possible, to shelter the students and personnel in case fire takes place during inclement weather and buses are not available. Evacuation of the building should take place without stopping for coats and hats.

THE FIRE DRILL in the home

13 should receive the same importance as that of the fire drill in the school. Since more lives are lost in home fires than in school fires, the seriousness of the home fire drill should be recognized.

14 should include practice in escaping from the house or apartment with escape routes well planned in advance and a prearranged meeting place for the family outside the building.

15 should point out the danger areas in the house or apartment or places through which drafts of air flow freely so that these places can be avoided during a fire. Such places as elevator shafts, stairways, and hallways where hot air, gases, or smoke generated by the fire might flow upwards may be considered.

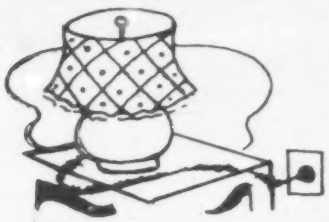
16 should include the proper method of reporting a fire with provisions for sending someone to a fire alarm box while a member of the family is reporting the fire by telephone since it is possible the telephone wires might be burned.

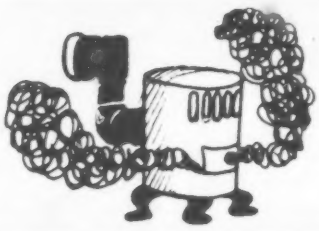
17 should consider what the proper procedure is in the event someone's clothes should catch fire. If it is at all possible, the fire should be put out with water; if this is not possible, the person should roll himself up in a coat, blanket, or rug to smother the fire. Running with clothing on fire will fan the flames and increase the danger.

18 should include knowledge of the most serious fire threats to the family so that all may be on guard against smoking, misuse of electricity, defective or overheated heating and cooking equipment, improper disposal of rubbish, careless use of flammable liquids, lightning, defective or overheated chimneys, and children's use of matches.

19 should include the best escape route from the upper floor. It is possible that one may leave by the regular route if it has been ascertained that the stairway is not flaming nor the hall loaded with smoke, poisonous gases, or superheated air. However, it is wise to have plans for escape through a window by a ladder, a porch roof, or some other similar method.

20 should provide understanding of the danger of opening a door before testing for fire and smoke. This can be done by feeling the door or the doorknob; if it is hot, do not open the door. If it is not hot, brace yourself against the door, opening it cautiously. If smoke shoots in, force the door closed and escape by the window.





SPARKY'S OFFICIAL

HOME FIRE INSPECTION BLANK

INSTRUCTIONS TO JUNIOR FIRE INSPECTORS: The best way to fight fire, boys and girls, is to stop fires before they start. And the most important place that we can do this is right in our own homes. Check your home — and yourself, too — with the following questions (the same ones a real fire inspector would ask) . . . . Try for as many YES answers as possible because every NO answer means *fire danger*.

1. Has all rubbish such as old papers, broken furniture and toys, boxes, old clothes and paint cans and other useless things been cleaned out of your attic, basement, closets, garage and yard? Yes No
2. Is rubbish disposed of regularly at your house? Yes No
3. Frayed electric cords often start fires. Are you sure all the electric cords in your home are in safe condition? Yes No
4. Ask dad to go with you and inspect the fuse box. Is the right sized fuse in every socket (15 amperes is the safest size for lighting circuits)? Yes No
5. Have you checked around your house and removed extension cords from under rugs or hanging over nails? Yes No
6. Are the matches and lighters in your house out of reach of small children? Yes No
7. You know it's very dangerous for anybody to play with matches. Have you promised mother and dad never to use matches unless they say you can? Yes No
8. Have you warned everybody at home never to use flammable liquids like gasoline for cleaning clothes or kerosene for starting fires? Yes No
9. Are mother's oily mops hung up and are oily rags kept in a tightly closed can or thrown away after use? Yes No
10. Are there plenty of ash trays in all rooms of your house? Yes No
11. In case your home caught fire when you were asleep, do you know what you would do to save yourself? If you don't know, be sure to ask your dad and mom what you should do! Yes No
12. Does your family have fire drills in your home? Yes No
13. In case of fire, do you know how to call the fire department? Yes No
14. Have you ever visited a fire station? Yes No
15. Smokepipes, furnaces and stoves get very hot. Are they far enough away from the walls and ceilings in your house? Yes No
16. Are the ashes from any stove or fireplace in your house kept outside in covered metal barrels away from anything that might catch fire? Yes No
17. If your house has a fireplace, do you make sure a screen covers the front whenever a fire is going? Yes No
18. Do you always watch to make sure there are no clothes or curtains or furniture near any stove or heater in the house? Yes No
19. If there is an oil stove or oil heater in your house, is it kept level and clean and does a regular stove man carefully inspect it for defects at least once every year? Yes No
20. If there is a gas stove or gas heater in your house, do you know that you should call the gas company right away if you ever smell gas? Yes No

Assistant Inspector (parent or guardian) | **Name of Junior Fire Inspector**

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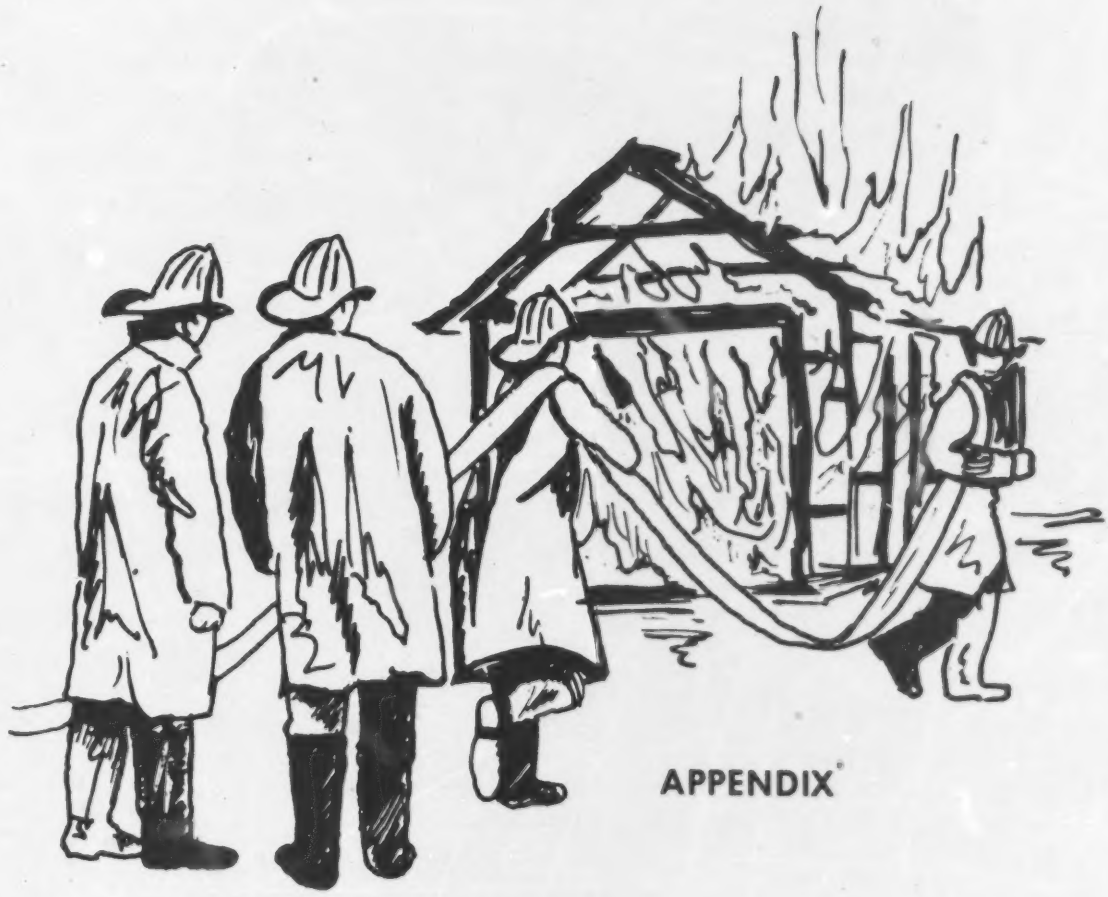
EVALUATION OF THE PROGRAM

How do we gauge the effectiveness of fire prevention education? Generally, evidence of success will be found in the cumulative reduction of the number and severity of fires in the community over a period of time. In addition, evidence of success will be found in the reduction of false alarms reported.

More immediate evaluation of the program might include the following:

1. Does a study of a series of school, home, and/or farm inspection blanks reveal improvement in conditions conducive to firesafety?
2. Is there evidence of increasing interest in firesafety by children, school personnel, parents, and the community in general?
3. Is a firesafety consciousness observable in the attitudes and behavior of children, school personnel, parents, and the community?
4. Is there evidence of increasing cooperation and willingness to share responsibility in matters of firesafety?
5. Are pupils, teachers, and noninstructional personnel always ready for inspection by a firesafety expert?
6. Is there evidence of interest and cooperation on the part of all personnel, instructional and noninstructional alike?
7. Does the response of pupils to the fire drill indicate improvement in promptness and order?
8. Improvement in knowledge of firesafety will be seen readily, but is there evidence of improvement in behavioral habits as well?



APPENDIX

KNOW YOUR FIRE

	WATER TYPE		
	STORED PRESSURE	CARTRIDGE OPERATED	WATER PUMP TANK
CLASS A FIRES WOOD, PAPER, TRASH – HAVING GLOWING EMBERS	YES	YES	YES
CLASS B FIRES FLAMMABLE LIQUIDS, GASOLINE, OIL, PAINTS, GREASE, ETC.	NO	NO	NO
CLASS C FIRES ELECTRICAL EQUIPMENT	NO	NO	NO
USUAL OPERATION	SQUEEZE HANDLE OR TURN VALVE	TURN UPSIDE DOWN AND BUMP	PUMP HANDLE
RANGE	30′ – 40′	30′ – 40′	30′ – 40′
SERVICE BY	CHECK AIR PRESSURE	WEIGH GAS CARTRIDGE ADD WATER IF REQUIRED	DISCHARGE AND FILL WITH WATER ANNUALLY

EXTINGUISHERS

	FOAM	CARBON DIOXIDE	
SODA ACID	FOAM	CO2	DRY CHEMICAL
YES	NO (BUT WILL CONTROL SMALL FIRES)	NO (BUT WILL CONTROL SMALL SURFACE FIRES)	NO (BUT WILL CONTROL SMALL SURFACE FIRES)
NO	YES	YES	YES
NO	NO	YES	YES
TURN UPSIDE DOWN	TURN UPSIDE DOWN	RUPTURE CARTRIDGE – SQUEEZE RELEASE	RUPTURE CARTRIDGE – SQUEEZE RELEASE
30′ – 40′	30′ – 35′	2′ – 4′	6′ – 12′
DISCHARGE ANNUALLY – RECHARGE	DISCHARGE ANNUALLY – RECHARGE	WEIGH SEMI-ANNUALLY	WEIGH GAS CARTRIDGE – CHECK CONDITION OF DRY POWDER

Recommended Markings to Indicate Extinguisher Suitability*

The following recommendations are given as a guide in marking extinguishers, and/or extinguisher locations, to indicate the suitability of the extinguisher for a particular class of fire (see Paragraph 2100).

Markings should be applied by decalcomanias, painting or similar methods having at least equivalent legibility and durability.

Where markings are applied to the extinguisher, they should be located on the front of the shell above or below the extinguisher nameplate. Markings should be of a size and form to give easy legibility at a distance of 3 feet.

Where markings are applied to wall panels, etc., in the vicinity of extinguishers, they should be of a size and form to give easy legibility at a distance of 25 feet.

1. Extinguishers suitable for "Class A" fires should be identified by a triangle containing the letter "A". If colored, the triangle shall be colored green.*

2. Extinguishers suitable for "Class B" fires should be identified by a square containing the letter "B". If colored, the square shall be colored red.*

3. Extinguishers suitable for "Class C" fires should be identified by a circle containing the letter "C". If colored, the circle shall be colored blue.*

4. Extinguishers suitable for fires involving metals should be identified by a five-pointed star containing the letter "D". If colored, the star shall be colored yellow.*

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*Courtesy of The National Fire Protection Association, 60 Batterymarch Street, Boston, Mass. 02110. NOTE: Recommended colors as described in the Federal Color Standard Number 595† are:

Green — No. 14260
Red — No. 11105
Blue — No. 15102
Yellow — No. 13655

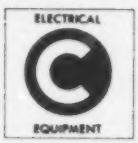
†Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Price: $2.25 per copy.

Extinguishers suitable for more than one class of fire may be identified by multiple symbols as described previously.

Typical Markings

1. **Soda-Acid Extinguisher**

2. **Carbon Dioxide Extinguisher**



3. **Multi-Purpose Dry Chemical Extinguisher**

4. **Extinguisher for Metal Fires**

NEW YORK STATE EDUCATION LAW PERTAINING TO FIRE DRILLS AND FIRE PREVENTION EDUCATION

§ 807. Fire drills

1. It shall be the duty of the principal or other person in charge of every public or private school or educational institution within the state, other than colleges or universities, having more than twenty-five pupils, or maintained in a building two or more stories high to instruct and train the pupils by means of drills, so that they may in a sudden emergency be able to leave the school building in the shortest possible time and without confusion or panic. Such drills or rapid dismissals shall be held at least twelve times in each school year, eight of which required drills shall be held between September first and December first of each such year. At least one-third of all such required drills shall be through use of the fire escapes on buildings where fire escapes are provided. At least four additional drills shall be held in each school year during the hours after sunset and before sunrise in school buildings in which students are provided with sleeping accommodations. At least two additional drills shall be held during summer school in buildings where summer school is conducted, and one of such drills shall be held during the first week of summer school.

2. It shall be the duty of the board of education or school board or other body having control of the schools in any district or city to cause a copy of this section to be printed in the manual or handbook prepared for the guidance of teachers, where such manual or handbook is in use or may hereafter come into use.

3. It shall be the duty of the person in charge of every public or private college or university within the state, having more than twenty-five students, or maintained in a building two or more stories high to instruct and train the students by means of drills, so that they may in a sudden emergency be able to leave the college or university building in the shortest possible time and without confusion or panic. Such drills shall be held at least three times in each year, one of which required drills shall be held between September first and December first of each such year. In buildings where summer sessions are conducted, one of such required drills shall be held during the first week of such summer session. At least one of such required drills shall be through use of the fire escapes on buildings where fire escapes are provided. At least one additional drill shall be held in each year during the hours after sunset and before sunrise in college or university buildings in which students are provided with sleeping accommodations.

4. Neglect by any principal or other person in charge of any public or private school or educational institution to comply with the provisions of this section shall be a misdemeanor punishable at the discretion of the court by a fine not exceeding fifty dollars; such fine to be paid to the pension fund of the local fire department where there is such a fund.

§ 807-a. Fire inspections

1. It shall be the duty of the school authorities in general charge of the operation of any public or private school to cause the buildings of such school containing classroom, dormitory, laboratory, physical education, dining or recreational facilities for student use to be inspected at least annually for fire hazards which might endanger the lives of students, teachers and employees therein.

2. The annual fire inspection shall be made prior to the first day of December of every school year and the report thereof shall be filed by the school authorities in the places required by subdivision five of this section no later than the sixteenth day of December of every such year.

3. a. The school authorities shall cause any fire inspection pursuant to this section to be made by one of the following methods, or any combination of such methods:

(1) Employing, either regularly or specially, persons who, in the judgment of the school authorities, are qualified to make such an inspection, or any phase thereof.

(2) Contracting for the making of such inspections, or any phase thereof, by persons who, in the judgment of the school authorities, are qualified.

(3) Requesting inspection by the fire department of any city, town, village or fire district in which the building is located.

(4) Requesting inspection by a fire corporation which is subject to the provisions of section fourteen hundred two of the not-for-profit corporation law, if such building is located within the area described in the certificate of incorporation of any such corporation.

(5) Requesting inspection by the county fire coordinator, or the officer performing the powers and duties of a county fire coordinator pursuant to a local law, of the county in which the building is located, or by any deputy county fire coordinator or deputy of such other officer so performing the powers and duties of a county fire coordinator designated to make the inspection by the county fire coordinator or such other officer so performing the powers and duties of a county fire coordinator, if the building is located outside a city, town, village, or fire district, which has its own fire department and outside the area described in the certificate of incorporation of any fire corporation which is subject to the provisions of section fourteen hundred two of the not-for-profit corporation law.

b. If any such inspection, or phase thereof, is to be made by either of the methods specified in subparagraphs (1) and (2) of paragraph a of this subdivision, the school authorities shall give reasonable notice of the date and time such inspection is to be made to the chief engineer, or other comparable officer, of any fire department, or fire corporation, which has the regular duty of fighting fire in the building to be inspected. Such officer, or any subordinate designated by him, may be present during the inspection and may also file a report of inspection in the manner provided in this section.

c. If any fire department or fire corporation described in subparagraphs (3) and (4) of paragraph a of this subdivision shall fail or refuse to make a fire inspection promptly after having been requested to do so by the school authorities, the school authorities may request the county fire coordinator,

or the officer performing the powers and duties of a county fire coordinator pursuant to a local law, of the county in which the building is located to make such inspection. It shall be the duty of the county fire coordinator, or such other officer so performing the powers and duties of a county fire coordinator, in such case to make such inspection or cause it to be made by a deputy whom he shall designate.

d. Regardless of the method or methods used to accomplish the inspection required by this section, the person making the inspection shall file the report thereof with the school authorities no later than the first day of December.

4. The director of the division of fire safety of the office for local government in the executive department shall prescribe the form of the fire inspection report. The commissioner of education shall furnish a supply of such form to school authorities.

5. a. The report of any fire inspection shall be filed in the office of the school authorities and, in the case of private schools, the report also shall be filed in the office of the director of division of fire safety of the office for local government in the executive department and, in the case of public schools, the report also shall be filed with the commissioner of education. All such reports so filed in any public office shall be kept as public records for at least three years after which period they may be destroyed.

b. Within twenty days after the filing of the report with the school authorities, the school authorities shall cause public notice of the filing of such report to be given in substantially the following form: "Notice is hereby given that the annual inspection for (year) of the school building (or of the and school buildings) of (name of school district or private school) for fire hazards which might endanger the lives of students, teachers and employees therein, has been completed and the report thereof is available at the office of (school district or private school) at for inspection by all interested persons". If the inspection was not made for the school authorities by the fire department or fire company responsible for fire protection of the building, such authorities shall cause a copy of such notice to be mailed to the chief of such fire department or company.

c. The school authorities of public schools shall cause such notice to be published at least once in the official newspaper, or if there is no official newspaper, in a newspaper having general circulation in the school district, and if there is no newspaper having general circulation in the district, shall cause such notice to be posted in ten conspicuous places in the district. Proof of publication or posting of such notice and of the mailing of a copy of such notice to the fire chief shall be filed in the office of the district.

d. The school authorities of private schools shall cause such notice to be published at least once in a newspaper having general circulation in the postal area in which the school building is located, and if there is no newspaper having general circulation in such postal area, shall cause such notice to be posted in ten conspicuous places in such postal area. Proof of posting or publication of such notice and of the mailing of a copy of such notice to the fire chief shall be filed in the school office.

e. If the report shows any alleged deficiencies, the school authorities shall give at least five days notice by mail to the chief of the fire department or fire company responsible for fire protection of the school building of the

date and place of a meeting of the trustees, board of education, or corresponding officers by whatever name known, to be held within thirty days following the publication or posting required by this section, and shall at such meeting confer with the fire chief concerning the alleged deficiencies appearing on the inspection report and the measures proposed to be taken by the school authorities to correct such deficiencies.

f. In each such school district subject to the jurisdiction of a district superintendent under the provisions of article forty-five of the education law, such district superintendent shall ascertain that the notices required by this subdivision have been published or posted, and mailed, and any conference with the fire chief required by this subdivision has been had.

6. It shall be the duty of the commissioner of education, in the case of public schools, and the director of the division of fire safety, in the case of private schools, to ascertain annually whether the inspections of school buildings required by this section have been made and the reports of the inspection have been filed in their respective offices. The commissioner of education, in the case of public schools, and the director of the division of fire safety, in the case of private schools, shall review the reports of inspection filed pursuant to this section and may make recommendations to the school authorities with respect to any problems relating to school fire safety noted in such reports. The commissioner of education, in the case of public schools, and the director of the division of fire safety, in the case of private schools, may inspect or cause to be inspected at any reasonable time for fire prevention and fire protection purposes the school buildings required to be inspected by this section.

7. Every public or private school required to be inspected as hereinabove provided may be inspected for fire prevention and fire protection purposes at any reasonable time by

a. the chief of the fire department of the city, town, village or fire district in which the school is located,

b. the chief of a fire corporation having its headquarters outside a village or fire district, if the school is located in the area described in the certificate of incorporation of such company,

c. the chief of the fire department or fire company affording fire protection to a fire district, fire protection district, or fire alarm district pursuant to a contract, if the school is located in any such district,

d. the member of any fire department or fire company listed in paragraphs a, b or c of this subdivision assigned by the chief thereof the duty of inspecting school buildings.

8. Any person, or any public or other corporation for which any such person acts, shall not be liable for any error, omission or lack of thoroughness in the making of the inspection and report required or permitted by this section.

9. The term "school authorities", as used in this section, means, in relation to public schools, the trustees, or board of education, or corresponding officers, whether one or more, and by whatever name known of a city school district, or other school district however created, or, in relation to private schools, the board of trustees, board of directors, or other governing board in general charge of the operation of any such school.

10. The term "private school", as used this section means:

a. Any nursery school or kindergarten attended by six or more pupils three years of age or older which may apply for registration by the New York state

education department pursuant to part one hundred twenty-five of title eight of the official compilation of codes, rules and regulations of the state of New York; provided, however, that this section shall not apply to day care facilities possessing a valid permit as required by section three hundred ninety of the social services law; or

b. Any establishment, other than a public school, attended by twenty-five or more pupils for the purpose of receiving the instruction of academic grade at the elementary or secondary level required by part one of article sixty-five of this chapter.

11. This section shall not apply to the school authorities in the cities of New York, Buffalo, Rochester, Syracuse, Yonkers and Albany or to colleges and universities.

§ 807-c. Transmission of fire alarm to fire department

(1) The school authorities designated in subdivision nine of section eight hundred seven-a of this chapter in charge of the operation of any public school or any private school designated in subdivision ten of such section, located in an area within which a fire department or fire company is responsible for fire protection and within which there is no electrically or electronically operated fire alarm reporting system provided for public use shall cause the internal fire alarm, fire detection, or fire protection system of each building in which is contained classroom, dormitory, laboratory, physical education, dining or recreational facilities for student use to be interconnected by direct wire with the fire alarm reporting location or system which is provided for such fire department or fire company to receive alarms from the public so that upon activation of such internal fire alarm, fire detection, or fire protection system a signal will be automatically transmitted to such fire alarm reporting location or system.

(2) In lieu of such interconnection by direct wire, upon agreement between such school authorities and such fire department or company such signal may be transmitted by radio wave.

Added L.1970, c. 922, eff. Sept. 1, 1972.

Effective Date. Section was enacted L.1970, c. 922, eff. Sept. 1, 1971. L.1971, c. 773, amended the effective date to read Sept. 1, 1972.

§ 808. Instruction in fire prevention

1. The commissioner of education is hereby directed to provide and prescribe a course of instruction in fire prevention relating to the protection of life and property against loss or damage as a result of preventable fire, for use in the schools of the state, as prescribed by this section.

2. The board of education, trustees, principal or other person in charge of every public, private and parochial school in the state shall arrange for giving such course of instruction in every school under its or his control or direction. Such instruction shall be given to all of the pupils in every such school for a period of not less than fifteen minutes in each week during which such school is in session.

L.1947, c. 820, eff. July 1, 1947.